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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/773,959

02/09/2004

Stephen Laurence Boren

B539 0007

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EXAMINER

PERUNGAVOOR, VENKATANARAY

ART UNIT

PAPER NUMBER

2132

MAIL DATE

DELIVERY MODE

07/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/773,959	BOREN ET AL.	
	Examiner	Art Unit	
	Venkat Perungavoor	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/04, 9/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless –
 - (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
2. Claims 1-6, 11-16, 20-23 are rejected under 35 U.S.C. 102(a) as being anticipated by US Patent 6445797 to McGough.
3. Regarding Claim 1, 11, McGough discloses the selecting a number n of sub-keys each having unique non-repeating length m_n bytes see Fig. 1 item 102, 103, 104, 104; generating n random numbers for each sub-key having length m_n see item 107, 108; generating $n+1^{st}$ random number see Col 7 Ln 15-44; set $p = \text{Mod } m_n(R)$ see Col 7 Ln 65; for each byte whose position in n th random number is p applying function to all n bytes to generate value see Col 17 Ln 45-56; concatenating value to the cipher see Fig. 1 item 120; set $p = p + 1$ see Col 15 Ln 40; and repeating steps described above see Col 21 Ln 61-67.
4. Regarding Claim 2, 12, McGough discloses the prime number being used see Col 7 Ln 22-29.
5. Regarding Claim 3, 13, McGough discloses the prime number greater than 10 see Col 9 Ln 29-40.
6. Regarding Claim 4-6, 14-16, 20-23, McGough discloses the exclusive-or, delinearization and substitution function see Col 2 Ln 8-17.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
8. Claims 7-8,17-18, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6445797 to McGough in view of US Patent 5850450 to Schweitzer et al.(hereinafter Schweitzer).
9. Regarding Claim 7-8, 17-18, McGough does not disclose the generating a random number that is not a perfect square and taking the square root of that number. Further, concatenating that byte until a length m_n is reached. However, Schweitzer discloses the generating a random number that is not a perfect square and taking the square root of that number. Further, concatenating that byte until a length m_n is reached see Fig. 8 item 801, 802 & Col 5 Ln 49-60. And the length being four bytes long see Col 10 Ln 23-28. It would be obvious to one having ordinary skill in the art at the time of the invention to include the the generating a random number that is not a perfect square and taking the square root of that number. Further, concatenating that byte until a length m_n is reached in the invention of McGough in order to generate a prime that is pseudo-random as taught in see Col 9 Ln 55-64.
10. Regarding Claim 9-10, 19, McGough discloses the mod function being used see Col 8 Ln 18.


Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Venkat Perungavoor whose telephone number is 571-272-7213. The examiner can normally be reached on 8:30-5:00.If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2132

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VP/
Venkat Perungavoor
Examiner
Art Unit 2132
July 7, 2007


GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100